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Chen 1-18

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE****Patent Application**

**Applicant(s):** Y. Chen et al.  
**Case:** 1-18  
**Serial No.:** 09/608,639  
**Filing Date:** June 30, 2000  
**Group:** 2828  
**Examiner:** Cornelius H. Jackson

I hereby certify that this paper is being transmitted on this date via facsimile to  
Examiner Cornelius H. Jackson of the United States Patent and Trademark Office at  
(970) 273-1942.

Signature: *Lisa L. Vulpis* Date: January 10, 2005

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**Title:** System Comprising Optical  
Semiconductor Waveguide Device

**LETTER**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

As per the request of Examiner Jackson, listed below are the pending claims of the above-identified application.

If any additional information is required, please contact the undersigned.

1. (Previously presented) An optical communication system comprising an external cavity laser that comprises:

a gain medium comprising an active region, the gain medium including an antireflective layer to prevent the laser from lasing off facets of the laser, the active region containing a quantum well to generate light, the quantum well having sides and cladding layers formed on the sides;

a tapered beam expanding region, optically coupled to the active region, the beam expanding region and being wider than the active region, the beam expanding region shaped to provide lateral broadening and vertical broadening or both;

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